Abstract

The tremendous effects of air quality in large cities have been considered a severe environmental problem all over the world. Therefore, the international community agreed to develop air quality standards to monitor and control pollution rates around industrial communities. Harmful emission into the air is a sign that could extremely affect man’s health, natural life and agriculture. Forecasting models is essential for predicting air quality. CO2 emissions have been an international concern because of fossil fuels. In this study, Particle Swarm Optimization (PSO) is used for analyzing world CO2 emission based on the global energy consumption. A parametric PSO model is developed to forecast CO2 emission based set of attributes. They include: global oil, natural gas, coal, and primary energy consumption. A data set collected during the years 1980 and 2010 were used in this study.
Experimental results show that PSO can provide good modeling results using a limited number of measurements compared to other linear models.

References

Forecast Global Carbon Dioxide Emission using Swarm Intelligence


Index Terms

Computer Science
Algorithms

Keywords
Air Pollution Carbon Emission Swarm Intelligence